

**STATE FOREST LAND
ENVIRONMENTAL CHECKLIST**

Purpose of Checklist:

The State Environmental Policy Act (SEPA), chapter 43.21C RCW, requires all governmental agencies to consider the environmental impacts of a proposal before making decisions. An environmental impact statement (EIS) must be prepared for all proposals with probable significant adverse impacts on the quality of the environment. The purpose of this checklist is to provide information to help you and the agency identify impacts from your proposal (and to reduce or avoid impacts from the proposal, if it can be done) and to help the agency decide whether an EIS is required.

Instructions for Applicants:

This environmental checklist asks you to describe some basic information about your proposal. Governmental agencies use this checklist to determine whether the environmental impacts of your proposal are significant, requiring preparation of an EIS. Answer the questions briefly, with the most precise information known, or give the best description you can. *Questions in italics are supplemental to Ecology's standard environmental checklist. They have been added by the DNR to assist in the review of state forest land proposals. Adjacency and landscape/watershed-administrative-unit (WAU) maps for this proposal are available on the DNR internet website at <http://www.dnr.wa.gov> under "SEPA Center." These maps may also be reviewed at the DNR regional office responsible for the proposal. This checklist is to be used for SEPA evaluation of state forest land activities.*

You must answer each question accurately and carefully, to the best of your knowledge. In most cases, you should be able to answer the questions from your own observations or project plans without the need to hire experts. If you really do not know the answer, or if a question does not apply to your proposal, write "do not know" or "does not apply." Complete answers to the questions now may avoid unnecessary delays later. *All of the questions are intended to address the complete proposal as described by your response to question A-11. The proposal acres in question A-11 may cover a larger area than the forest practice application acres, or the actual timber sale acres.*

Some questions ask about governmental regulations, such as zoning, shoreline, and landmark designations. Answer these questions if you can. If you have problems, the governmental agencies can assist you.

The checklist questions apply to all parts of your proposal, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. The agency to which you submit this checklist may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impact.

Use of checklist for nonproject proposals:

Complete this checklist for nonproject proposals, even though questions may be answered "does not apply." IN ADDITION, complete the SUPPLEMENTAL SHEET FOR NON PROJECT ACTIONS (part D).

For nonproject actions, the references in the checklist to the words "project," "applicant," and "property or site" should be read as "proposal," "proposer" and "affected geographic area," respectively.

A. BACKGROUND

1. Name of proposed project, if applicable:

Timber Sale Name: Aeneas 320

Agreement #: 75665

2. Name of applicant: Department of Natural Resources

3. Address and phone number of applicant and contact person:

Arne Johnson
Department of Natural Resources
P.O. Box 190
Colville, WA 99114-0190

Phone: (509) 684-7474

4. Date checklist prepared: July 15, 2003

5. Agency requesting checklist: Department of Natural Resources

6. Proposed timing or schedule (including phasing, if applicable):

a. Auction Date: April 27, 2004

b. Planned contract end date (but may be extended): October 31, 2005

c. Phasing: None

7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.

No

Timber Sale

- a. Site preparation:*

Normal ground disturbance will occur with yarding operations.

- b. Regeneration Method:*

The site is already occupied by advanced regeneration of approximately 1,000-1,200 trees per acre. Species include Douglas fir, ponderosa pine, and western larch.

c. *Vegetation Management:*

Ditch lines, headwalls, catch basins, and skid trails will be seeded with grass to minimize surface erosion, promote soil rehabilitation, and reduce the potential spread of noxious weeds. The district will continue its aggressive roadside noxious weeds program, combined with road closures, to minimize noxious weed introduction and spread.

d. *Thinning:*

The timber harvest itself will be a commercial thinning operation.

Roads: See A.11

Rock Pits and/or Sale: See A.11

Other: Firewood cutting of logging slash after harvest.

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.

☐ 303 (d) – listed water body in WAU: ☐ temp ☐ sediment ☐ completed TMDL (total maximum daily load):
☐ Landscape plan:
☐ Watershed analysis:
☐ Interdisciplinary team (ID Team) report:
☒ Road design plan:
☐ Wildlife report:
☐ Geotechnical report:
☒ Other specialist report(s): Water Type Inspection form
☐ Memorandum of understanding (sportsmen's groups, neighborhood associations, tribes, etc.):
☐ Rock pit plan:
☒ Other: GIS generated WAU maps showing soil type, mass wasting potential, erosion potential, soil stability, and hydrologic maturity of the Aeneas-Cape Labelle WAU, Department of Natural Resources (DNR) TRAX, Department of Fish and Wildlife (WDFW) Heritage Database, DNR Forest Resource Plan, DNR Forest Resource Plan Environmental Impact Statement (July 1992), and the State Soil Survey.

9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.

None pending

10. List any government approvals or permits that will be needed for your proposal, if known.

☒ HPA ☐ Burning permit ☐ Shoreline permit ☐ Incidental take permit ☒ FPA # _____ ☒ Other:

11. Give brief, complete description of our proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include specific information on project description.)

a. *Complete proposal description:*

This proposal is located in the Aeneas-Cape Labelle WAU approximately 25 miles southeast of Tonasket, Washington. The sale is within a 320 acre state parcel. The proposal area is 279 gross acres; of which there are 272 net acres proposed for harvest approximately 1.0 MMbf of conifer timber in one harvest unit. Streams and their associated RMZs were removed from the sale area. Harvest systems will be ground based, including tracked and rubber tired skidder operations.

The transportation system used throughout this proposal will be upgraded. There is currently a drainage problem along the 353005A road (see Forest Practice Activity Map for road location) that is contributing to the erosion and inevitable failure of the road between stations 0+00 and 7+00. Because of an existing side channel of the stream south of the road an additional culvert will be added to restore the hydrologic connectivity of stream across the road, enabling the area to adequately handle high/peak flow events, and alleviate the further deterioration of the road while restoring the roads structural integrity, thus reducing the amount of sediment deposited into the stream. There will also be two culverts placed between stations 0+95 and 2+20 to aid in the stability of this road. In addition to the 700 feet of reconstruction, there is approximately 9,966 feet of prehaul road maintenance, 10,560 feet of general road maintenance to improve drainage and minimize sediment displacement. There will be no new road construction associated with this proposal.

b. *Timber stand description pre-harvest (include major timber species and origin date), type of harvest, overall unit objectives.*

Timber Stand Description: The unit is dominated by 40-70 year old Douglas fir with ponderosa pine interspersed throughout the stand. There are also pockets of western larch heavily infested with mistletoe. Excluding large remnants, average stand diameters are between 8 and 12 inches dbh, most of which are currently growing in tightly clumped pockets throughout the 279 acre unit. Because, of the clumpy/tightly spaced nature of the stand, growth, particularly in the Douglas fir, has become stagnant as less and less resources have become available to each tree. The site is also occupied by advanced regeneration of approximately 1,000-1,200 trees per acre.

Type of Harvest: The unit will be an unven-aged harvest leaving approximately 28 trees, 10 inches dbh and greater per acre. In addition approximately eight trees between 8 and 10 inches dbh per acre will be retained.

Overall Unit Objectives: Allocate more resources per tree to improve the productivity of the site; reduce mistletoe infestations and keep them to a minimum across the unit. Create more space for natural regeneration to become established for future productivity. Keep the overall stand in an early seral state relatively free of insect and disease outbreaks, stimulate the growth of browse species in the understory to provide wildlife food and cover. Retain wildlife and green recruitment trees for wildlife cover and habitat. Retainment of large, as well as smaller diameter trees and down woody debris for stand structure, nutrient cycling and aesthetic appeal. Generating revenue for the common school trust (03).

c. Road activity summary. See also forest practice application (FPA) for maps and more details.

All roads will be insloped/outloped and have drainage dips, water bars, and ditch lines where appropriate to minimize surface erosion and the direct deposit of sediment into streams. No new road construction will take place as a result of this proposal. There will be 700 feet of required road reconstruction, 9,966 feet of prehaul maintenance and 10,560 feet of regular road maintenance.

Type of Activity	How Many	Length (feet) (Estimated)	Acres (Estimated)	Fish Barrier Removals (#)
Construction		0	0	0
Reconstruction		700		0
Abandonment		0	0	0
Bridge Install/Replace	0			0
Culvert Install/Replace (fish)	0			0
Culvert Install/Replace (no fish)	3			

12. Location of proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist. (See timber sale map. See also color landscape/WAU map on the DNR website <http://www.dnr.wa.gov> under “SEPA Center.”)

a. Legal description:

The proposal is located in Section 5, Township 35 North, Range 30 East, W.M.

b. Distance and direction from nearest town (include road names):

Approximately 25 miles southeast of Tonasket, Washington, via Highway 20, Aeneas Valley Road and Forest Service Road 30.

c. Identify the watershed administrative unit (WAU), the WAU Sub-basin(s), and acres. (See also landscape/WAU map on DNR website <http://www.dnr.wa.gov> under “ SEPA Center.”)

The proposal is located in the Aeneas-Cape Labelle WAU. The Aeneas-Cape Labelle WAU is 49,077 acres, while the proposal is 272 net harvest acres.

13. Discuss any known future activities not associated with this proposal that may result in a cumulative change in the environment when combined with the past and current proposal(s). (See digital ortho-photos for WAU and adjacency maps on DNR website <http://www.dnr.wa.gov> under “SEPA Center” for a broader landscape perspective.)

This proposal is located in the Aeneas-Cape Labelle WAU. Aeneas Creek is within the proposal vicinity and flows into the West Fork of the San Poil River. There should be no significant increase in peak flows or other resource impacts associated with the Aeneas 320 proposal in combination with other past, present, or reasonably foreseeable activities in the Aeneas-Cape Labelle WAU.

Approximately 52% of the WAU falls within the Okanogan National Forest. About 41% is under private ownership, 6% is managed by the DNR, and the remaining 1% is managed by the Washington Department of Fish and Wildlife. Based on photo interpretation of recent (2000) photos and field recon observations, there have been no harvests on DNR ownership within the last ten years. There are two evenaged harvest units immediately adjacent to the south of the proposal area on US Forest Service land. One unit is approximately 120 acres in size and the other unit is approximately 90 acres. Both units were harvested about ten years ago and are currently fully stocked with a mixture of western larch, ponderosa pine, and Douglas fir regeneration approximately 8-15 feet tall. No data was available regarding the soils of these adjacent harvest units. However, through field recon observations, the terrain was found to be similar to the proposal area. The soils within the proposal area are rated as having insignificant to low mass wasting potential and low to medium soil erosion potential. According to the maps generated from the DNR GIS database, the 320 acres of state land that the proposal area lies within, was found to have stable slopes, with the exception of the northwest corner. It should be noted that nearly all of this section of unstable slopes was excluded from the unit. See Table in B.1.c., for the breakdown of soils within the harvest unit. Based on photo interpretation of recent photos (2000) there has been approximately 600 acres of USFS land evenaged harvested within the WAU in the last ten years, nearly all of which has been in the rain on snow zone. According to the DNR GIS database, within the last seven years on non-DNR managed lands (private ownership) there has been 581 Forest Practice application (FPA) approval acres of evenaged harvest, and 487 forest practice approval acres of uneven age harvest.

Current and reasonably foreseeable proposed activities on DNR managed lands have been/will be planned with water quality/flow in mind, and care has been taken to minimize the potential for adverse impacts. Grazing and dispersed recreation use is anticipated to continue on DNR parcels throughout the WAU. Actual forested lands currently being managed for timber production is a small percentage of land within the WAU and will have minimal impacts across the entire WAU. See Sections B.1.h., B.3.a.2., B.3.a.3., B.3.a.5., B.3.a.7., B.3.a.9., B.3.c.1., and B.3.d. Approximately 36 trees per acre will be left in the proposed harvest unit as wildlife reserve trees, and potential future crop trees. Nearly all leave trees are green (live). Leave trees will be scattered throughout the unit. The trees that will be left will range in diameter from six to 30+ inches, giving preference to insect and disease free trees. Small openings will be scattered throughout the units due to pockets of western larch infected with mistletoe. No increase in peak flow or other resource impacts within the WAU are anticipated as a result of this proposal in combination with all other timber, range, recreation, or agricultural management across all ownerships in the rain on snow zone within the Aeneas-Cape Labelle WAU.

To assure that this proposal will not contribute to an increased chance of cumulative environmental impact, many protection measures have been included in the proposal. As a result of this proposal, a portion of the 353005A road will be reconstructed between stations 0+00 and 7+00 (see Forest Practice Activity Map for locations). This reconstruction will restore the hydrologic connectivity of the typed water running under the road, increase the stability of the road, and will minimize the delivery of sediment currently entering the stream as a result of the roads present condition. Roads are to be reconstructed according to road specifications outlined in the road plan and during the dry weather construction season to maximize resource protection. No new road construction is required as a result of this proposal. Drivable dips, water bars, ditches, and rock will be used to avoid resource or capital improvement damage due to soil erosion. The contract administrator will monitor activities to determine if and when hauling, yarding, and falling will be suspended due to wet weather conditions that may threaten public resources. This will occur for hauling on Forest Service and graveled county roads as well. See B.1.h.

B. ENVIRONMENTAL ELEMENTS

1. Earth

a. General description of the site (check one):

☐Flat, ☒Rolling, ☐Hilly, ☐Steep Slopes, ☐Mountainous, ☐Other:

1) General description of the WAU or sub-basin(s) (landforms, climate, elevations, and forest vegetation zone).

The general terrain of the WAU includes flat benches, rolling hills, bluffs, mountainous steep slopes, and valleys with slopes averaging 2 to 60%. Precipitation within the WAU averages from 8 to 30 inches a year. Elevations range from 1,000' to 6,000'. Major timber types include Douglas fir, Douglas fir/western larch, Douglas fir/ponderosa pine (lower elevations) and lodgepole pine (higher elevations). Some Engelmann spruce may be found in draws and/or canyons. Approximately 80% of the WAU is forested land and 20% is non-forested. The vegetation zones include ponderosa pine, interior Douglas fir and subalpine fir.

2) Identify any difference between the proposal location and the general description of the WAU or sub-basin(s).

The elevation of the proposal is approximately 3,000' to 3,500'. The proposal consists mainly of Douglas fir and ponderosa pine with pockets of western larch. It is in the interior Douglas fir vegetation zone.

b. What is the steepest slope on the site (approximate percent slope)?

55% on 5% of the site.

c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any prime farmland. *Note: The following table is created from state soil survey data. It is a roll-up of general soils information for the soils found in the entire sale area. It is only one of several site assessment tools used in conjunction with actual site inspections for slope stability concerns or erosion potential. It can help indicate potential for shallow, rapid soil movement, but often does not represent deeper soil sub-strata. The actual soils conditions in the sale area may vary considerably based on land-form shapes, presence of erosive situations, and other factors. The state soil survey is a compilation of various surveys with different standards.*

State Soil Survey #	Soil Texture	% Slope	Acres	Mass Wasting Potential	Erosion Potential
0676	Fine Sandy Loam	0-25%	167	Insignificant	Medium
4724	Sandy Loam	0-25%	91	Insignificant	Low
9045	Gravelly Sandy Loam	15-45%	21	Low	Medium

d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.

No, there are no indications of unstable soils in the vicinity of the proposal.

1) Surface indications:

There are no surface indications.

2) Is there evidence of natural slope failures in the sub-basin(s)?

☒No ☐Yes, type of failures (shallow vs. deep-seated) and failure site characteristics:

There is no evidence of slope failures in the sub-basin.

3) Are there slope failures in the sub-basin(s) associated with timber harvest activities or roads?

☐No ☒Yes, type of failures (shallow vs. deep-seated) and failure site characteristics:

Associated management activity: Timber harvest/road construction

Small local events can be found along cut banks of main county and other roads within the WAU. These consist primarily of sloughing of material into ditches and occasionally onto road surfaces.

4) Is the proposed site similar to sites where slope failures have occurred previously in the sub-basin(s)?

☐No ☒Yes, describe similarities between the conditions and activities on these sites:

Sites and soil types located within this proposal are similar to other small local events within the WAU. Preventative and corrective measures will be taken to avoid resource or capital improvement damage due to soil erosion.

5) Describe any slope stability protection measures (including sale boundary location, road, and harvest system decisions) incorporated into this proposal.

All harvest units have been designed with slope stability protection measures in mind. All typed waters have been buffered. There are no unstable soils within the proposal area. Furthermore, leave trees have been scattered throughout all units to aid in soil/slope stability.

No new roads will be needed for this proposal. See B.1.h.

e. Describe the purpose, type, and approximate quantities of any filling or grading proposed. Indicate source of fill.

Approx. acreage new roads: 0 Approx. acreage new landings: 2 Fill source: 0

No filling is proposed except the minimum needed for culvert installation.

f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.

There is a short term potential for some minimal erosion to occur as a result of road maintenance/reconstruction and/or harvest activities associated with this proposal. Management techniques have been identified where appropriate to minimize or eliminate the risk of erosion. No harvest will occur within identified riparian management zone. Please refer to B.1.d.5 and B.1.h. for management activities designed to minimize erosion. The risk of erosion and sediment delivery will be reduced over the long term due to reconstruction activities.

g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)? *Approximate percent of proposal in permanent road running surface (includes gravel roads):*

No impervious surfaces will be used as a result of this proposal. Gravel will be used during road reconstruction on either side of typed stream crossings (less than 1% of proposal area) in compliance with Forest Practice rules. Approximately 1% of the proposal area is covered with existing roads (native surface materials), and will be grass seeded upon completion of the project.

h. Propose measures to reduce or control erosion, or other impacts to the earth, if any:
(Include protection measures for minimizing compaction or rutting.)

As mentioned earlier, the portion of the 353005A road from station 0+00 to 7+00 will be reconstructed with additional culverts and rock being installed to alleviate the current drainage and subsequent erosion problem occurring presently. These activities will minimize soil erosion and sediment delivery to the stream over the long term. The contract administrator will monitor activities to determine if and when hauling, yarding, and falling will be suspended due to wet weather conditions that may threaten public resources. This will occur for hauling on Forest Service and graveled county roads as well. All terms, provisions, and conditions of the road use permit obtained from the USFS will be followed during maintenance activities on the Forest Service 30 road. In order to minimize the potential of ground disturbance and sediment reaching channeled portions of Type 4 drainages, harvest has been deferred along the entire length of these drainages, including those areas where no signs of scour or deposition were found. All existing roads are located on gentle ground, and will be maintained or reconstructed to allow for proper drainage. Proper road maintenance and reconstruction, coordinated skidding patterns and landing locations, effective contract administration, and normal road maintenance should minimize the erosion potential.

Water bars and/or drivable dips, ditching, and cross drains, outsloping, monitoring, and revegetating will be utilized. All proposed measures will meet and/or exceed Forest Practice regulations. Road surface will be outsloped/insloped/crowned. On crowned or insloped portions of road, ditch lines and cross drains will be installed. Cross drain structures will conduct water out onto natural vegetation on the forest floor. Energy dissipating structures will be placed at the outfall of cross drains where necessary to prevent erosion. Headwalls of culvert inlets will be rocked. Fill around culverts at live stream crossings will be armored with rock on the inlet and outfall sides. Non-erodible material for road surfacing will be applied within 50 feet of Type 4 stream crossings. Ditch lines and cut and fill slopes will be revegetated. On slopes greater than 25%, main skid trails will be water barred and/or have slash scattered on them. Within 100 feet of typed waters, skid trails will have slash scattered on them and/or will be revegetated. Hauling will not occur during spring breakup (April 1 to June 1) unless conditions allow and it is authorized by the contract administrator. Also, see B.1.d.5.

2. Air

a. What types of emissions to the air would result from the proposal (i.e., dust *from truck traffic, rock mining, crushing or hauling*, automobile, odors, industrial wood smoke) during construction and when the project is completed? If any, generally describe and give approximate quantities if known.

This proposed timber harvest will involve vehicle emissions from logging, yarding, and hauling equipment; dust from road construction and logging activities; and dust from log hauling activities. Such emissions should result in no significant impact to air quality. If broadcast burning/slash burning occurs, it will adhere to the state's Smoke Management Program.

b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.

There are no off-site sources of emissions that may affect the proposal.

c. Proposed measures to reduce or control emissions or other impacts to air, if any:

Dust abatement will be performed as needed.

3. Water

a. Surface:

1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into. *(See timber sale map and forest practice base maps.)*

Yes, see Forest Practice Activity Map for stream locations. Type 4 stream segments: There are three Type 4 streams segments located within the vicinity of the proposal. Type 3 stream segments: There is one Type 3 segment located near the proposal area.

a) *Downstream water bodies:*

Aeneas Creek and the West Fork of the San Poil River.

b) *Complete the following riparian & wetland management zone table:*

Wetland, Stream, Lake, Pond, or Saltwater Name (if any)	Water Type	Number (how many?)	Avg RMZ/WMZ Width in Feet (per side for streams)
Stream	4	3	50
Stream	3	1	100

- c) *List RMZ/WMZ protection measures including silvicultural prescriptions, road-related RMZ/WMZ protection measures, and wind buffers.*

Type 4 stream segments: There are 50 foot no harvest buffers along the Type 4 stream segments.

Type 3 stream segment: There is a 100 foot no harvest buffer along the Type 3 stream segment in the northwest corner of the harvest unit.

Road Mitigation: Many measures will be taken to reduce the amount of sediment runoff and soil erosion due to roads. There is currently a drainage problem along the 353005A road. As part of this proposal, an additional culvert will be added, ditches will be filled and the road will be reshaped in this area to alleviate the problem and restore hydrologic connectivity of the stream. Also, see B.1.h.

- 2) Will the project require any work over, in, or adjacent to (within 200 feet) to the described waters? If yes, please describe and attach available plans.

☐ No ☒ Yes (See RMZ/WMZ table above and timber sale map.)

Description (include culverts):

Type 4 and 3 stream segment: The crossing occurs at a Type 4/Type 3 break, with the Type 3 segment being below the crossing. This stream segment will be crossed for hauling purposes. A culvert currently routes water underneath the 353005A road, and a second culvert (36" x 34") will be added just west of the existing culvert to aid in moving water underneath the road. The road surface will be rocked 50 feet either side of the culverts.

- 3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.

Fill and dredge material will be the absolute minimum needed for the installation of culverts. Clean adjacent fill material will be used and managed prudently.

- 4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known. (Include diversions for fish-passage culvert installation.)

☒ No ☐ Yes, description:

No diversions are anticipated. If needed, an HPA and associated conditions will be followed.

- 5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.

☒ No ☐ Yes, describe location:

No, the proposal does not lie with a 100-year floodplain.

- 6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.

☒ No ☐ Yes, type and volume:

No waste will be discharged into surface waters.

- 7) *Does the sub-basin contain soils or terrain susceptible to surface erosion and/or mass wasting? What is the potential for eroded material to enter surface water?*

Yes, areas within the WAU may be susceptible to erosion. Surface erosion is a natural occurring process and will continue with or without management activities. All activities associated within this proposal are designed to avoid steeper slopes and stream banks where erosion is more likely to occur. The terrain of these areas is comparable to that which is described in B.1.a.1 of this document. Protection measures designed to minimize erosion delivery to surface waters can be found in B.1.h.

- 8) *Is there evidence of changes to the channels in the WAU and sub-basin(s) due to surface erosion or mass wasting (accelerated aggradations, erosion, decrease in large organic debris (LOD), change in channel dimensions)?*

☐ No ☒ Yes, describe changes and possible causes:

Yes, because of improper drainage structures associated with the 353005A road, the Type 4 water that flows under the road has been forced to run along the road and has caused minor failures in the road, increasing sediment loading in the immediate vicinity. As a result of this proposal, this portion of the road would be reconstructed, and the addition of drainage features would restore the integrity of the stream channel, and the stability of the road.

- 9) *Could this proposal affect water quality based on the answers to the questions 1-8 above?*

☒ No ☐ Yes, explain:

There is little or no adverse impact to stream flow or water quality anticipated as a result of activities associated with this proposal. Sale unit design, skidding patterns, operating seasons, and prescriptions should minimize any potential for adverse impacts.

- 10) What are the approximate road miles per square mile in the WAU and sub-basin(s)?
Are you aware of areas where forest roads or road ditches intercept sub-surface flow and deliver surface water to streams, rather than back to the forest floor?
☐No ☒Yes, describe:
- Road miles per square mile within the Aeneas-Cape Labelle WAU is 2.5. DNR ownership within the WAU contains one mile of road per square mile. The road described in No. 8 above, is currently intercepting flow and depositing it into typed water. However, the reconstruction described above would alleviate that problem.
- 11) Is the proposal within a significant rain-on-snow (ROS) zone? If not, **STOP HERE** and go to question B-3-a-13 below. Use the WAU or sub-basin(s) for the ROS percentage questions below.
☐No ☒Yes, approximate percent of WAU in significant ROS zone. 77%
Approximate percent of sub-basin(s):
- 12) If the proposal is within the significant ROS zone, what is the approximate percentage of the WAU or sub-basin(s) within the significant ROS zone (all ownerships) that is (are) rated as hydrologically mature?
- Yes, the proposal is within the rain on snow zone. After examining recent (2000) ortho photos it was estimated that across all ownerships, approximately 95% of the forest land within the rain on snow zone is hydrologically mature.
- 13) Is there evidence of changes to channels associated with peak flows in the WAU or sub-basin(s)?
☐No ☒Yes, describe observations:
- Yes, increased down cutting and erosion of the side channel that flows along the road described in No. 8 above. As described above, the reconstruction proposed would alleviate this problem.
- 14) Based on your answers to questions B-3-a-10 through B-3-a-13 above, describe whether and how this proposal, in combination with other past, current, or reasonably foreseeable proposals in the WAU and sub-basin(s), may contribute to a peak flow impact.
- Due to protection measures, such as harvest design, prescription, proper road maintenance/reconstruction, and operating season restrictions there should be little to no increase in peak flows in areas associated with the proposal. Recent harvests within the immediate vicinity of the proposal (Sections 7 and 8) occurred approximately ten years ago and are currently fully stocked, and should not contribute to a peak flow problem. DNR ownership within the WAU is 6%, not all of which is managed for timber production, thus the proposed activities should be relatively minimal over the entire WAU.
- Federal ownership is approximately 52% of the WAU. Most of the ownership is expected to be maintained in a mature condition. According to recent 2000 photos, most evenaged activity on federal lands occurred 10-20 years ago and are currently fully stocked.
- It is anticipated that management on private land will continue. About 41% of the WAU is under private ownership. Much of this land is non-forested and would not affect hydrologic maturity. Current and expired (last seven years) Forest Practice applications represent a small portion of the total WAU acreage (approximately 2%, includes private ownerships) of which approximately half are unevenaged management.
- Current and reasonably foreseeable activities have been planned with water quality/flow in mind, and care has been taken to minimize the potential for adverse impacts. See Sections B.1.h., B.3.a.2., B.3.a.3., B.3.a.5., B.3.a.7., B.3.a.9., B.3.c.1., B.3.d.
- 15) Is there water resource (public, domestic, agricultural, hatchery, etc.), or area of slope instability, downstream or downslope of the proposed activity that could be affected by changes in surface water amounts, quality, or movements as a result of this proposal?
☒No ☐Yes, possible impacts:
- No changes in surface water amounts or movements are anticipated as a result of this proposal.
- 16) Based on your answers to questions B-3-a-10 through B-3-a-15 above, note any protection measures addressing possible peak flow/flooding impacts.
- See B.3.a.14., and B.3.a.1.c.

b. Ground Water:

- 1) Will ground water be withdrawn, or will water be discharged to ground water? Give general description, purpose, and approximate quantities if known.
- No ground water will be withdrawn as part of this project. Ground water should not be significantly changed by this project. Reduction in water quality should not occur as a result of activities associated with this proposal. Some surface water discharge (around culverts) may percolate to ground water.
- 2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.
- No waste materials will be discharged into ground water.
- 3) Is there a water resource use (public, domestic, agricultural, hatchery, etc.), or area of slope instability, downstream or down slope of the proposed activity that could be affected by changes in groundwater amounts, timing, or movements as a result this proposal?
☒No ☐Yes, describe:

a) Note protection measures, if any.

See B.3.a.14 for measures that will mitigate any potential impacts to ground water quality or quantity.

c. Water Runoff (including storm water):

- 1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.

Snowmelt and rain are the main sources of water runoff. Runoff that is intercepted by road surfaces and ditches will be diverted onto the undisturbed forest floor where possible. As described earlier, the reconstruction proposed for the 353005A road would improve the collection and disposal of runoff into natural drainages without compromising the stability of the road and minimizing erosion and stream sedimentation.

- 2) Could waste materials enter ground or surface waters? If so, generally describe.

No waste materials will enter ground or surface waters.

a) Note protection measures, if any.

None needed

d. Proposed measures to reduce or control surface, ground, and runoff water impacts, if any:
(See surface water, ground water, and water runoff sections above, questions B-3-a-1-c, B-3-a-16, B-3-b-3-a, and B-3-c-2-a.)

See B.3.a.14 and B.1.h. for protection measures in addition to those listed above.

4. Plants

a. Check or circle types of vegetation found on the site:

- ☒deciduous tree: ☐alder, ☒maple, ☒aspen, ☒cottonwood, ☒western larch, ☒birch, ☐other:
☒evergreen tree: ☒Douglas fir, ☐grand fir, ☐Pacific silver fir, ☒ponderosa pine, ☒lodgepole pine,
☐western hemlock, ☐mountain hemlock, ☒Englemann spruce, ☐Sitka spruce,
☐red cedar, ☐yellow cedar, ☐other:
☒shrubs: ☒huckleberry, ☐salmonberry, ☐salal, ☒other: service berry, snowberry, Oregon grape, ninebark, willow
☒grass
☐pasture
☐crop or grain
☐wet soil plants: ☐cattail, ☐buttercup, ☐bullrush, ☐skunk cabbage, ☐devil's club, ☐other:
☐water plants: ☐water lily, ☐eelgrass, ☐milfoil, ☐other:
☒other types of vegetation: western yarrow
☐plant communities of concern:

b. What kind and amount of vegetation will be removed or altered? (See answers to questions A-11-a, A-11-b, B-3-a-1-b and B-3-a-1-c. The following sub-questions merely supplement those answers.)

- 1) Describe the species, age, and structural diversity of the timber types immediately adjacent to the removal area.
(See landscape/WAU and adjacency maps on the DNR website at: <http://www.dnr.wa.gov> under "SEPA Center.")

The unit is bordered to the north, east, and west by unevenaged stands of Douglas fir approximately 80-100 years old. There are two even-aged harvest units bordering the proposal area to the south on USFS land. They were harvested approximately 10-15 years ago, and are currently fully stocked with a mixture of western larch, ponderosa pine, and Douglas fir saplings. These two harvest units are separated by a block of timber bordering the proposal area, dominated by uneven-aged Douglas fir (80-100 years old), approximately 100 acres in size.

- 2) Retention tree plan:

Approximately 36 trees per acre will be left in the proposed harvest unit as legacy, wildlife, and potential future crop trees. Leave trees are nearly all green trees, but all snags that are safe to leave will be left. Leave trees will be randomly scattered throughout the units. Size classes to be left throughout the unit include from 6 to 30+ inches dbh, giving preference to insect and disease free Douglas fir and ponderosa pine. Small openings will be scattered throughout the unit due to pockets of western larch infected with mistletoe.

c. List threatened or endangered plant species known to be on or near the site.

No threatened or endangered plant species are known to be on or near the site.

TSU Number	FMU_ID	Common Name	Federal Listing Status	WA State Listing Status
None Found in Database Search				

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:

Grass seeding (native seed) along roads on disturbed soils will help prohibit the spread of noxious weeds and will minimize erosion.

5. Animal

- a. Circle or check any birds animals or unique habitats which have been observed on or near the site or are known to be on or near the site:

birds: ☒hawk, ☐heron, ☒eagle, ☒songbirds, ☐pigeon, ☒other: grouse, turkey
mammals: ☒deer, ☒bear, ☐elk, ☐beaver, ☒other: cougar
fish: ☐bass, ☐salmon, ☐trout, ☐herring, ☐shellfish, ☐other:
unique habitats: ☐talus slopes, ☐caves, ☐cliffs, ☐oak woodlands, ☐balds, ☐mineral springs

- b. List any threatened or endangered species known to be on or near the site (include federal- and state-listed species).

No threatened or endangered species are known to be on or near the site.

TSU Number	FMU_ID	Common Name	Federal Listing Status	WA State Listing Status
None Found in Database Search				

- c. Is the site part of a migration route? If so, explain.
☐Pacific flyway ☒Other migration route: Explain if any boxes checked:

Mule deer and white tail deer may use the general area annually during migration. Due to the proposal's activities, there may be increased potential for the site to be used more often as part of the overall migration route. The regeneration of grasses, forbs, low shrubs, bushes, etc., may create more habitat opportunities for deer and other herbivores.

- d. Proposed measures to preserve or enhance wildlife, if any:

1) Note existing or proposed protection measures, if any, for the complete proposal described in question A-11.

This proposal should have an overall positive affect on wildlife species that favor early seral forest habitats. By leaving 36 trees per acre the stand will be opened up to stimulate the growth of browse species in the understory without compromising the cover provided by the canopy. Furthermore, the structural diversity of the stand will be retained by leaving trees across a wide range of diameter classes (both green and snags), enhancing the availability of wildlife cover and habitat. Also, riparian management zone buffers have been placed on all typed waters where necessary.

6. Energy and Natural Resources

- a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project’s energy needs? Describe whether it will be used for heating, manufacturing, etc.

Most logging and log hauling equipment will require the use of diesel fuel.

- b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.

No, the project will not affect the potential use of solar energy by adjacent properties.

- c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:

There are no energy conservation features included in the plans of this proposal.

7. Environmental Health

- a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? If so, describe.

Minimal hazard, concurrent with operating or working around heavy machinery. Minor spillage of fuel or other lubricants is always a possibility. The risk of forest fire is ever present, and may be increased for approximately two years due to logging slash.

1) Describe special emergency services that might be required.

The Washington State Department of Ecology will be notified if any significant spills occur, and appropriate actions will be taken. The DNR and local fire districts will be notified in the event of a wildfire. Emergency medical or air ambulance services may be required for personal injuries.

2) Proposed measures to reduce or control environmental health hazards, if any:

Compliance with existing state laws regarding environmental health hazards.

- b. Noise

1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?

No noises in the area will affect the proposal.

2) What types and levels of noise would be created by or associated with the project on a short-term or long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from this site.

During the road construction, maintenance, and harvest activities, there will be some noise associated with heavy equipment, chain saws, and log truck operations.

- 3) Proposed measures to reduce or control noise impacts, if any:

Noise levels are not expected to result in significant impact. Therefore, no mitigating measures are planned.

8. Land and Shoreline Use

- a. What is the current use of the site and adjacent properties? (*Site includes the complete proposal, e.g. rock pits and access roads.*)
- The site is currently used for timber production, cattle grazing, and dispersed recreational activities, such as hunting, wood cutting, and hiking.
- b. Has the site been used for agriculture? If so, describe.
- Yes, the site is currently being utilized by cattle under an existing lease.
- c. Describe any structures on the site.
- There are no structures on the site.
- d. Will any structures be demolished? If so, what?
- No structures will be demolished.
- e. What is the current zoning classification of the site?
- No zoning applies.
- f. What is the current comprehensive plan designation of the site?
- Rural
- g. If applicable, what is the current shoreline master program designation of the site?
- There is no shoreline master program designation of this site.
- h. Has any part of the site been classified as an “environmentally sensitive” area? If so, specify.
- No part of the site has been classified as "environmentally sensitive."
- i. Approximately how many people would reside or work in the completed project?
- No people are anticipated to work in, or reside in the completed project area.
- j. Approximately how many people would the completed project displace?
- The completed project will not displace anyone.
- k. Proposed measures to avoid or reduce displacement impacts, if any:
- The completed project will not displace anyone.
- l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:
- This proposal shall maintain and/or enhance compatibility with existing and projected land uses, such as timber production, grazing, dispersed recreational activities, and use by wildlife for forage, roosting, travel, and cover.

9. Housing

- a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.
- No housing will be needed.
- b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.
- No housing will be eliminated.
- c. Proposed measures to reduce or control housing impacts, if any:
- There will be no housing impacts as a result of this proposal.

10. Aesthetics

- a. What is the tallest height of any proposed structure(s), not including antennas; what is the principle exterior building material(s) proposed?
- There will be no structures built as a result of this proposal.
- b. What views in the immediate vicinity would be altered or obstructed?
- Minor view impacts to local view due timber removal.

- 1) *Is this proposal visible from a residential area, town, city, developed recreation site, or a scenic vista?*
☒No ☐Yes, viewing location:
- 2) *Is this proposal visible from a major transportation or designated scenic corridor (county road, state or interstate highway, US route, river, or Columbia Gorge SMA)?*
☒No ☐Yes, scenic corridor name:
- 3) *How will this proposal affect any views described in 1) or 2) above?*

The project will not obstruct any views described in 1) or 2) above.

- c. Proposed measures to reduce or control aesthetic impacts, if any:

Leave trees described in B.4.2., will reduce local aesthetic impacts.

11. Light and Glare

- a. What type of light or glare will the proposal produce? What time of day would it mainly occur?

The proposal will not produce any light or glare.

- b. Could light or glare from the finished project be a safety hazard or interfere with views?

The proposal will not produce any light or glare.

- c. What existing off-site sources of light or glare may affect your proposal?

No off-site sources of light or glare will affect the proposal.

- d. Proposed measures to reduce or control light and glare impacts, if any:

There are no measures to reduce or control light and glare impacts as a result of this proposal.

12. Recreation

- a. What designated and informal recreational opportunities are in the immediate vicinity?

There are no designated recreational areas in the proposal area. Informal activities, such as hunting, hiking, and camping, may occur within the immediate vicinity.

- b. Would the proposed project displace any existing recreational uses? If so, describe:

During harvest operations, areas of the timber sale and haul routes will be unsafe for recreation use due to timber harvesting operations.

- c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:

During harvesting operations, warning signs will be posted at the intersection of the Forest Service 30 road and the Aeneas Valley county road.

13. Historic and Cultural Preservation

- a. Are there any places or objects listed on, or proposed for national, state, or local preservation registers known to be on or next to the site? If so, generally describe.

No, there are no plans or objects in or proposed for national, state, or local preservation registers known to be on or next to the site.

- b. Generally describe any landmarks or evidence of historic, archaeological, scientific, or cultural importance known to be on or next to the site.

There are no landmarks of importance on this site.

- c. Proposed measures to reduce or control impacts, if any:

(Include all meetings or consultations with tribes, archaeologists, anthropologists or other authorities.)

If an unknown historic or cultural resource is discovered during the operation, the following process will occur: 1) Cease operations affecting the discovered site. 2) Physically identify the site on the ground so it can be located and impacts mitigated (a buffer if necessary). 3) Contact region state lands assistant and district manager, and work in collaboration on timing, confidentiality, and notification of tribes and other affected parties.

14. Transportation

- a. Identify public streets and highways serving the site, and describe proposed access to the existing street system. Show on site plans, if any.

Aeneas Valley Road and Forest Service 30 road.

- 1) *Is it likely that this proposal will contribute to an existing safety, noise, dust, maintenance, or other transportation impact problem(s)?*

There currently is no transportation problem to which proposal would contribute. It is possible that this proposal could add noise, dust, maintenance, or safety problems on the Aeneas Valley county road and the Forest Service 30 road. Warning signs will be posted informing the public of timber harvesting and hauling activities.

- b. Is site currently served by public transit? If not, what is the approximate distance to the nearest transit stop?

The site is not currently served by public transit.

- c. How many parking spaces would the completed project have? How many would the project eliminate?

The completed project would not contain any parking spaces.

- d. Will the proposal require any new roads or streets, or improvements to existing roads or streets, not including driveways? If so, generally describe (indicate whether public or private).

Yes, see A.11.

- 1) *How does this proposal impact the overall transportation system/circulation in the surrounding area, if at all?*

This proposal should have no significant impact on the current transportation system. Any impact at all will be temporary, and limited to the period of time during which operations are being conducted. Access to existing roads in the sale area may be restricted during operations, as needed for safety. No public use will be allowed on roads within the sale area during sale activity.

- e. Will the project use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.

No, the project will not use water, rail, or air transportation.

- f. How many vehicular trips per day would be generated by the completed project? If known, indicate when peak volumes would occur.

This proposal should result in no increase in vehicle trips per day upon completion of the timber sale. However, log hauling may involve from approximately five to ten loads per day during the course of operations. Also, see B.14.d.1., above.

- g. Proposed measures to reduce or control transportation impacts, if any:

Log hauling will not be permitted from April 1 to June 1 due to spring breakup. All terms, provisions, and conditions of the road use permit obtained from the USFS will be followed during maintenance activities on the Forest Service 30 road.

15. Public Services

- a. Would the project result in an increased need for public services (for example: fire protection, police protection, health care, schools, other)? If so, generally describe.

The project would not result in an increased need for public services.

- b. Proposed measures to reduce or control direct impacts on public services, if any.

There are no measures planned to reduce or control impacts on public services, as there are no impacts expected as a result of this proposal.

16. Utilities

- a. Circle utilities currently available at the site: electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other.

None

- b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.

There are no utilities proposed for this project.

C. SIGNATURE

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Completed by: Sam Grimm, Highlands Forester Date: July 21, 2003
Title

Reviewed by: Loren Torgerson, Highlands District Manager Date: _____
Title

Reviewed by: Arne Johnson, Management Forester Date: July 21, 2003
Title